

Otay Mountain Ecological Reserve

The Otay Mountain Ecological Reserve is a 480-acre property located on the north-facing slopes of Otay Mountain, San Diego County. The property overlooks the Lower Otay Reservoir, owned by the City of San Diego, to the south. Much of the land surrounding this reserve is owned and managed by the Bureau of Land Management, although some private land that is a part of the Otay Ranch development abuts the property to the south. This reserve was purchased by the Department in 1996 to conserve its habitat values and a number of sensitive species. This property is also part of the largest biological core area within the Multiple Species Conservation Plan, a NCCP plan within southern San Diego County. Before the Department acquisition, this property had been subdivided into 40-acre lots, and a large dirt road from the south had been constructed to access the property. Additional smaller disturbances were created during this time to conduct soils tests on each lot. Uncontrolled fire has had a significant effect upon the property, as well as surrounding properties. One or more fires swept through the site in the middle-late 1990s, and the vegetation on-site has still not fully recovered. Regional drought conditions have added to this slow recovery time.



Figure 10. Otay Mountain Ecological Reserve

Resource Inventory

A biological survey was conducted on the property in 1995, before the Department acquired the site. That survey identified relatively undisturbed coastal sage scrub, southern mixed chaparral, and Tecate cypress forest as the dominant vegetation communities present. The survey also identified sensitive species locations. Of particular importance was the presence of the federally-threatened California gnatcatcher, with an estimated five to six pairs within the sage scrub vegetation. Other sensitive species noted include: Tecate cypress (*Cupressus forbesii*), Cleveland goldstar (*Muilla clevelandii*), variegated dudleya (*Dudleya variegata*), and Southern California rufous-crowned sparrow (*Aimophila ruficeps*).

In 2002, a general walk-over survey was conducted to assess species presence and vegetation recovery. Table 7 lists the species detected. Of particular note, one Thorne's hairstreak butterfly (*Mitoura thornei*) was observed in the one small patch of mature Tecate cypress trees, near the abandoned orchard, that escaped the earlier fire. Almost all of the Tecate cypress forest was burned in this last fire in 1996, and small cypress saplings are all that are currently present on the rest of the property. Southern California rufous-crowned sparrows have re-established themselves in the recovering coastal sage scrub habitat. These areas are dominated by deerweed (*Lotus scoparius*), as well as scattered sage scrub species still in the early stage of recovery. Fresh mountain lion (*Felis concolor*) scat was also found on the main dirt road through the property. No California gnatcatchers were observed on the property. Extensive searches were conducted where pre-fire records had indicated that this species was present. The condition of the sage scrub habitat did not appear sufficiently mature to support this species.

Research

In 2002, a small scale research program was begun to assess the relationship between recovery of coastal sage scrub habitat from fire and the re-establishment of the California gnatcatcher. Six 25-meter transects were located at sites where California gnatcatchers were present before the last fire occurred on the reserve. Along each transect, point intercept vegetation data was collected at every half meter interval using a thin metal rod dropped perpendicular to the transect. Data were collected for shrubs, grasses, herbaceous plants, litter and bare ground. The research question being asked is at what point of coastal sage scrub recovery from fire does the California gnatcatcher recolonize a burned site? Vegetation monitoring is done in concert with surveys for the gnatcatcher.

Table 7. Wildlife Species occurring in Otay Mountain Ecological Reserve, 2002

MAMMALS			
Common Name	Scientific Name	Status	Comments*
Audubon's (Desert) Cottontail	<i>Sylvilagus audubonii</i>		1 individual seen; scat throughout.
Black-tailed Jackrabbit	<i>Lepus californicus</i>	SSC, MSCP	Scat
California Ground Squirrel	<i>Spermophilus beecheyi</i>		Burrows
Botta's Pocket Gopher	<i>Thomomys bottae</i>		Mounds
Coyote	<i>Canis latrans</i>		Scat
Gray fox	<i>Urocyon cinereoargenteus</i>		Scat
Mountain Lion	<i>Puma concolor</i>	MSCP	Scat (one old, one fairly fresh).
Bobcat	<i>Lynx rufus</i>		Scat.
Mule Deer	<i>Odocoileus hemionus</i>	MSCP	2 individuals plus pellets.
BIRDS			
Common Name	Scientific Name	Status	Comments*
Red-tailed Hawk	<i>Buteo jamaicensis</i>		1
Greater Roadrunner	<i>Geococcyx californianus</i>		Heard
Anna's Hummingbird	<i>Calypte anna</i>		2
Allen's/Rufous Hummingbird	<i>Selasphorus sp.</i>		1
Northern Flicker	<i>Colaptes auratus</i>		1
Black Phoebe	<i>Sayornis nigricans</i>		3
Loggerhead Shrike	<i>Lanius ludovicianus</i>	SSC	1
Western Scrub Jay	<i>Aphelocoma californica</i>		2
Common Raven	<i>Corvus corax</i>		5
Horned Lark	<i>Eremophila alpestris</i>		10
Bushtit	<i>Psaltirparus minimus</i>		5
Rock Wren	<i>Salpinctes obsoletus</i>		2
Hermit Thrush	<i>Catharus guttatus</i>		2
Wrentit	<i>Chamaea fasciata</i>		2 heard
California Thrasher	<i>Toxostoma redivivum</i>		1
Orange-crowned Warbler	<i>Vermivora celata</i>		2
Yellow-rumped Warbler	<i>Dendroica coronata</i>		20
Spotted Towhee	<i>Pipilo maculatus</i>		5
California Towhee	<i>Pipilo crissalis</i>		10
So. Calif. Rufous-crowned Sparrow	<i>Aimophila ruficeps</i>	SSC, MSCP	10
Lark Sparrow	<i>Chondestes grammacus</i>		25
Chipping Sparrow	<i>Spizella passerina</i>		1
White-crowned Sparrow	<i>Zonotrichia leucophrys</i>		1
Golden-crowned Sparrow	<i>Zonotrichia atricapilla</i>		1
Western Meadowlark	<i>Sturnella neglecta</i>		15
Lesser Goldfinch	<i>Carduelis psaltria</i>		10

REPTILES			
Common Name	Scientific Name	Status	Comments*
Granite Spiny Lizard	<i>Sceloporus orcutti</i>		2
Western Fence Lizard	<i>Sceloporus occidentalis</i>		3+
Side-blotched Lizard	<i>Uta stansburiana</i>		1
INVERTEBRATES			
Common Name	Scientific Name	Status	Comments*
Pacific (Sara) Orangetip	<i>Anthocharis sara sara</i>		
Perplexing (Green) Hairstreak	<i>Callophrys dumetorum affinis</i>		
Brown Elfin	<i>Callophrys augustinus</i>		
Thorne's Hairstreak	<i>Mitoura thornei</i>		1 collected. Found in Tecate Cypress stand adjacent to the olive grove; large cypress still extant here.
Southern Blue	<i>Glaucopsyche lygdamus australis</i>		
Behr's Metalmark	<i>Apodemia mormo virgulti</i>		
Gabb's Checkerspot	<i>Chlosyne gabbii</i>		
California (Common) Ringlet	<i>Coenonympha tullia</i>		

* All records from Department of Fish and Game biologists. Numbers refer to maximums detected per visit.

Status Codes: SSC-California Species of Special Concern; MSCP-MSCP covered species

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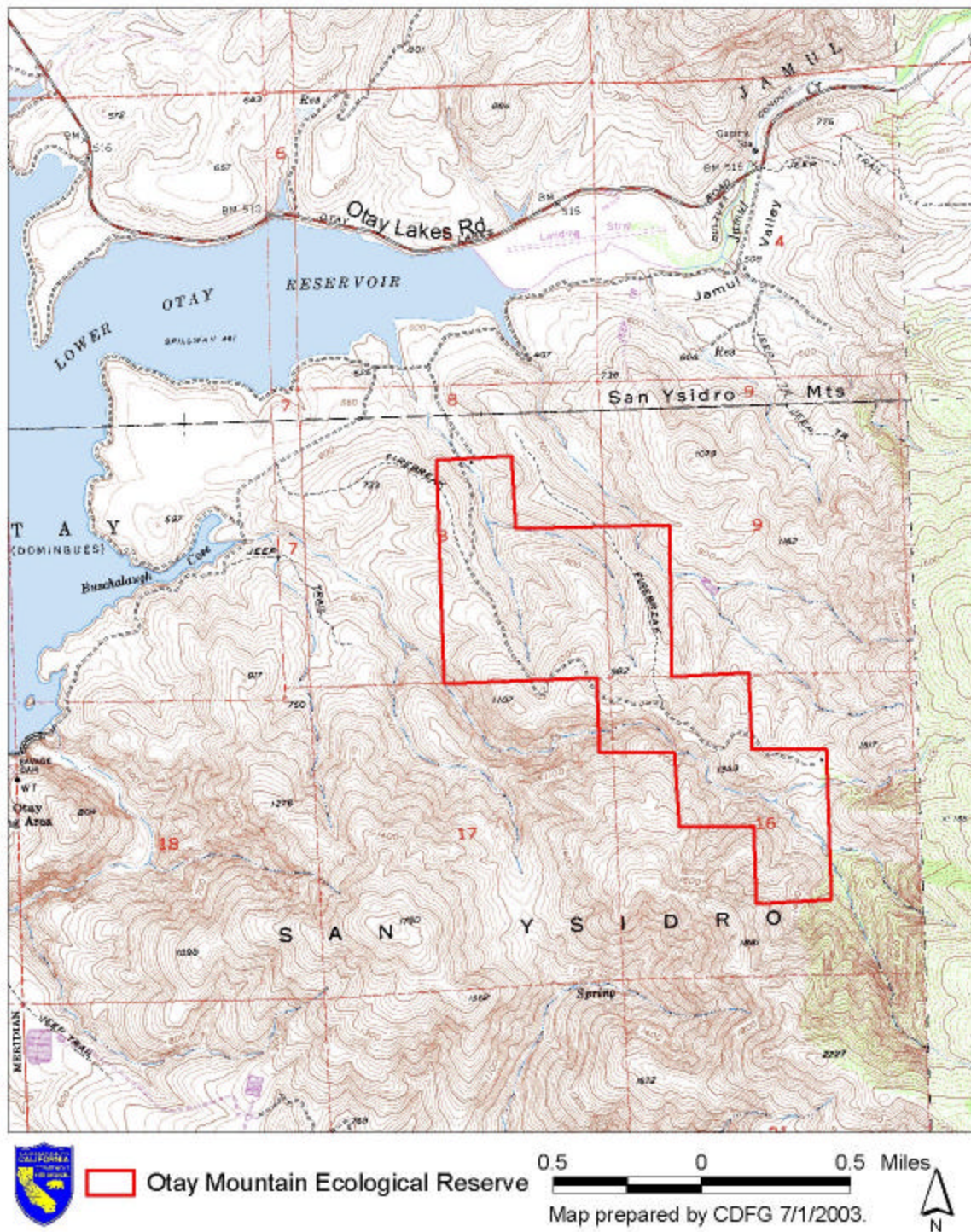


Figure 11. Map of Otay Mountain Ecological Reserve